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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,366	08/14/2003	Manoj Nerurkar	MA 0095 NP	2528

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EXAMINER	
MAIER, LEIGH C	

ART UNIT	PAPER NUMBER
1623	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/642,366	NERURKAR ET AL.	
	Examiner	Art Unit	
	Leigh C. Maier	1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-24 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-24 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 11/28/03, 11/18/04, 5/18/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 16 and 20 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form. These claims appear to recite inherent properties of the composition recited in the claims from which they depend. As such, they would not be considered to be further limiting.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 4, 5, 7-10, 12, 13, and 16 are rejected under 35 U.S.C. 103(a) as being obvious over PARAB et al (US 2002/0193438).

The claims are drawn to an inclusion complex of aripiprazole and a cyclodextrin as well as a pharmaceutical composition comprising said complex. Dependents recite further components and physico-chemical characteristics.

PARAB teaches the preparation of aqueous solutions of aripiprazole. The reference states that aripiprazole has limited aqueous solubility and suggests the use of solubilizing agents such as cyclodextrins. See paragraphs [0004] and [0040]. The reference further describes preferred characteristics of the solution, such as buffer system, pH, and concentration. See paragraphs [0005], [0010]-[0017], and [0020]. The reference does not exemplify a solution comprising a cyclodextrin or describe the solutions as "injectable." However, there is nothing in the description of these solutions that would make them unacceptable for injection.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to prepare a solution comprising a cyclodextrin for solubilization and an acid buffer to maintain the recited pH. The artisan would reasonably expect success because such solutions are specifically suggested by the art. It would be within the scope of the artisan to optimize the ratio of components through routine experimentation.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of

invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Claims 1-21 and 24 are rejected under 35 U.S.C. 103(a) as being obvious over PARAB et al (US 2002/0193438) in view of RAJEWSKI et al (J. Pharm. Sci., 1996).

The invention is as set forth above. Further dependents recite particular cyclodextrin species and aripiprazole:cyclodextrin ratios.

PARAB teaches as set forth above. The reference further teaches the use of the prepared compositions for the treatment of schizophrenia without causing undue irritation at the site of administration. The reference does not teach the recited cyclodextrin species.

RAJEWSKI teaches that many varieties of cyclodextrins are known for use for drug delivery. See abstract and Table 1. The reference further teaches that the use of cyclodextrins can decrease local irritation caused by the administration of drugs. See the section bridging pages 1154 and 1155 (sub-head "Decrease of Local Tissue Irritation or Masking of Objectionable Taste").

It would have been obvious to one having ordinary skill in the art at the time the invention was made to prepare the solutions taught by PARAB using any of the cyclodextrins disclosed by RAJEWSKI with a reasonable expectation of success. It would be within the scope of the artisan to optimize the aripiprazole:cyclodextrin ratio through routine optimization. As noted above, claims 16 and 20 recite inherent properties regarding reduced irritation. Because a composition's inherent characteristics cannot be divorced from the composition itself, the compositions prepared according the combination of references would also have these properties. It would be further obvious to orally administer the prepared solution for the treatment of schizophrenia as directed by the art with a reasonable expectation of success.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being obvious over PARAB et al (US 2002/0193438) in view of RAJEWSKI et al (J. Pharm. Sci., 1996) and further in view of OSHIRO et al (US 5,006,528).

The invention is as set forth above. Claims 22 and 23 are drawn to a method comprising the injection of the recited compositions.

PARAB teaches as set forth above. The reference does not teach injection of the compositions.

RAJEWSKI teaches as set forth above.

OSHIRO teaches aripiprazole as a treatment for schizophrenia. See col 2, lines 38-40 and claim 12. The reference further teaches administration by a variety of routes, including intramuscular injection. See col 9, lines 16-29.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to treat schizophrenia by intramuscular injection of the compositions comprising taught by PARAB. Although the PARAB solutions are intended for oral administration, the reference teaches that aripiprazole has limited solubility and suggests the use of a cyclodextrin for solubilization. RAJEWSKI further teaches that cyclodextrins are suitable for injection. Therefore, one of ordinary skill would reasonably expect success in administering such a composition in the manner suggested by OSHIRO.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-10, 13, and 15-21 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-5, 18, or 19 of copending Application No. 10/131,304 in view of RAJEWSKI et al (J. Pharm. Sci., 1996).

The claims of '304 recite a pharmaceutical composition comprising aripiprazole in combination with a taste-masking agent and a buffer system. The claims do not include a cyclodextrin. However, it is known that cyclodextrins have that function in drug delivery. See

RAJEWSKI at the section bridging pages 1154 and 1155 (sub-head "Decrease of Local Tissue Irritation or Masking of Objectionable Taste"). It would have been obvious to modify the claims of '304 with any pharmaceutically acceptable taste-masking agent, such as cyclodextrins, thereby rendering the instant claims obvious over these co-pending ones.

This is a provisional obviousness-type double patenting rejection. However, the application has been allowed but not yet issued. It is further noted that the allowed claims differ from the ones printed in the pre-grant publication (PARAB et al).

Examiner's hours, phone & fax numbers

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leigh Maier whose telephone number is (571) 272-0656. The examiner can normally be reached on Tuesday, Thursday, and Friday 7:00 to 3:30 (ET).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. James O. Wilson (571) 272-0661, may be contacted. The fax number for Group 1600, Art Unit 1623 is (703) 872-9306.

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Leigh C. Maier

Leigh C. Maier
Primary Examiner
September 15, 2005